

Applicant also has amended claim 48 to recite that the directional force operates on the blade to urge the blade toward the deployed position. Such amendment is supported in the original disclosure as illustrated in Figs. 4A-4C, which shows spring 90 urging blade B toward the deployed condition. Additionally, the original disclosure states that object of the present invention is to "provide a folding knife having means for allowing the blade to be readily opened and extended by persons having limited hand mobility" (col. 1, lns. 61-64).

### **REMARKS**

Reconsideration of the Office action dated May 19, 2004, is requested in view of the preceding amendments and the following remarks. Prior to this amendment, claims 1-31, 33-37, 45, and 47-50 were pending, with claims 1-31, 33-37, 45, and 47-50 rejected for the reasons addressed below. By this amendment, claims 12, 23, 30, 33, 34, 45, 47, and 48 are amended and claim 35 is cancelled without prejudice.

### **Claim Objections**

In response to the objections to claims 33 and 47 due to informalities of depending from cancelled claims, applicant has rewritten claims 33 and 47 in independent form to correct the identified informalities.

### **Claim Rejections – 35 U.S.C. § 112, 1<sup>st</sup> paragraph**

Claims 12-22, 30, 31, 33, and 35 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In response, applicant submits the following remarks and amendments.

Claim 12 was rejected as reciting a “compressible” plunger not supported in the original specification. Applicant has deleted the limitation “compressible” when referring to the plunger. Applicant believes that claim 12, as amended, complies with 35 U.S.C. § 112, first paragraph, Claims 13-22, which depend from claim 12, similarly comply with 35 U.S.C. § 112.

Claim 30 was rejected as reciting a “plunger operatively connected with the blade for orbital movement of a portion of the plunger about the blade” not supported in the original specification. Applicant has amended claim 30 to clarify that the orbital movement of the plunger is about the blade pivot. Applicant believes that claim 30, as amended, complies with 35 U.S.C. § 112, first paragraph. Claims 31 and 33, which depend from claim 30, similarly comply with 35 U.S.C. § 112.

Claim 35 was rejected as reciting a spring, “wherein the increase in the effective length occurs before the decrease in effective length,” not supported in the original specification. Applicant has amended claim 35 to clarify that the spring’s “effective length exhibits the decrease before the increase as said blade is moved from one of the stowed condition and the deployed condition toward the other condition.”

Therefore, applicant believes that all pending claims, as amended, comply with 35 U.S.C. § 112, first paragraph.

#### **Claim Rejections – 35 U.S.C. § 112, 2<sup>nd</sup> paragraph**

Claims 12, 23-31, and 33-37 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which applicant regards as the invention. In response, applicant submits the following remarks and amendments.

Specifically, claim 12 was rejected as reciting that the plunger is “adapted to assist with moving the blade between the retracted position and the extended position, or vice-versa,” which rendered the claim vague and indefinite as to how the plunger is “adapted” to perform the recited function. Applicant has amended claim 12 to delete the recited functional limitation and asserts that the amended claim is no longer vague and indefinite.

Claim 23 was rejected as reciting that the spring is “adapted to exert a pivoting force upon the blade,” which rendered the claim vague and indefinite as to how the spring is “adapted” to perform the recited function. Applicant has amended claim 23 to delete the recited functional limitation and asserts that the amended claim is no longer vague and indefinite. Claims 24-29, which depend from claim 23, are similarly no longer vague and indefinite.

Claim 30 was rejected as reciting “for orbital movement of a portion of the plunger about the blade and the spring is operatively interposed said handle and said blade,” which rendered the claim vague and indefinite as to what was being set forth. Applicant has amended claim 30 incorporating Examiner’s suggested addition of a comma after “blade.” Additionally, applicant asserts that the phrase “interposed said handle and said blade” is in proper form. Thus, applicant asserts that the amended claim is no longer vague and indefinite. Claims 31 and 33, which depend from claim 30, is similarly no longer vague and indefinite.

Claim 34 was rejected as reciting that the spring is “adapted to exhibit both an increase and a decrease in the effective length,” which rendered the claim vague and indefinite as to how the spring is “adapted” to perform the recited function. Applicant has amended claim 34 to delete the functional language “adapted to” and asserts that the amended claim is no longer vague and indefinite. Claims 35-37, which depend from claim 34, is similarly no longer vague and indefinite.

Therefore, applicant believes that all pending claims, as amended, comply with 35 U.S.C. § 112, second paragraph.

### **Claim Rejections – 35 U.S.C. §§ 102 & 103**

#### *Claim 12 and its Dependent Claims*

Claim 12 stands rejected under 35 U.S.C. § 102(b) as being unpatentable over French publication 1.069.862 (FP '862), French publication 1.171.740 (FP '740), Cassady (U.S. Patent No. 4,974,323), French publication 1.248.117 (FP '117), and Cassady (U.S. Patent No. 5,293,690). Claims 19-21, which all depend directly or indirectly from claim 12, also stand rejected under 35 U.S.C. § 102(b) based on several of the above references. Additionally, claims 13 and 16-18, which all depend directly from claim 12, stand rejected under 35 U.S.C. § 103(a) based on FP '862 in view of Thompson (U.S. Patent No. 5,131,149), Seber et al. (U.S. Patent No. 5,546,662), or Brown (U.S. Patent No. 1,701,027). As explained below, applicant disagrees with the rejections and have made certain claim amendments to clarify what he regards as his invention.

Claim 12, as amended, recites a plunger having a first end slidably and pivotally connected to the handle for longitudinal and/or pivotal movement of the plunger relative to the handle, as the blade moves between extended and retracted positions. Additionally, that first end is free from lateral movement relative to the handle, as the blade moves between extended and retracted positions.

Referring first to FP'862, that patent does not disclose, teach, or suggest a plunger with a first end that is pivotally connected to the handle. Instead, the first end of the asserted plunger in FP '862 appears to be only slidably connected to the handle, as shown in Figs. 3-5. Thus, FP

'862 does not disclose a plunger having a first end slidably and pivotally connected to the handle for longitudinal and/or pivotal movement of the plunger relative to the handle as the blade moves between extended and retracted positions.

Referring next to FP '740, that patent does not disclose a plunger with a first end that is pivotally connected to the handle. Instead, the first end of the asserted plunger in FP '740 appears to be only slidably connected to the handle, as shown in Figs. 6-7. Thus, FP '740 does not disclose a plunger having a first end slidably and pivotally connected to the handle for longitudinal and/or pivotal movement of the plunger relative to the handle, as the blade moves between extended and retracted positions.

With regard to U.S. Patent No. 4,974,323 to Cassady, that patent does not disclose a plunger with a first end that is pivotally connected to the handle. Instead, the first end of the asserted plunger in Cassady is only slidably connected to the handle, as shown in Figs. 10-15. Additionally, Cassady does not disclose a plunger with a first end that is free from lateral movement relative to the handle. Instead, the first end of the asserted plunger in Cassady laterally moves between bypass slot 56 and engagement ramp 62, as shown in Figs. 10-15. Thus, Cassady does not disclose a plunger having a first end slidably and pivotally connected to the handle for longitudinal and/or pivotal movement of the plunger relative to the handle, as the blade moves between extended and retracted positions.

Referring next to FP '117, that patent does not disclose a plunger with a first end that is free from lateral movement relative to the handle. Instead, the asserted plunger appears to move laterally relative to the handle when the blade is between the extended and retracted positions, as shown in Fig. 20. Thus, FP '117 does not disclose a plunger with a first end that is free from

lateral movement relative to the handle, as the blade moves between extended and retracted positions.

Referring finally to U.S. Patent No. 5,293,690 to Cassady, that patent does not disclose a plunger with a first end that is pivotally connected to the handle. Instead, the first end of the asserted plunger in Cassady appears to be only slidably connected to the handle, as shown in Figs. 7-8. Thus, Cassady does not disclose a plunger having a first end slidably and pivotally connected to the handle for longitudinal and/or pivotal movement of the plunger relative to the handle, as the blade moves between extended and retracted positions.

As discussed above, the cited references do not disclose, teach, or suggest a knife recited in amended claim 12. Claims 13 and 16-21 contain further limitations that distinguish the cited references. Accordingly, amended claim 12 and its dependent claims patentably distinguish the cited art, and applicant respectfully requests that the rejections of claims 12, 13, and 16-21 under 35 U.S.C. §§ 102(b) and 103(a) be withdrawn.

#### *Claim 23 and its Dependent Claims*

Claim 23 stands rejected under 35 U.S.C. § 102(b) as being unpatentable over Brown (U.S. Patent No. 1,864,011). Claims 28 and 29, which all depend directly from claim 23, also stand rejected under 35 U.S.C. § 102(b) based on the above reference. Additionally, claims 24, 27, and 28, which all depend directly from claim 23, stand rejected under 35 U.S.C. § 103(a) based on the above reference alone or in view of Thompson (U.S. Patent No. 5,131,149) or Seber et al. (U.S. Patent No. 5,546,662). As explained below, applicant disagrees with the rejections.

Claim 23 recites a knife with a spring operatively connected between the blade and the handle and configured to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position.

Referring to Brown, that patent does not disclose, teach, or suggest a spring configured to assist opening of the blade. Instead, spring portion 8 is configured to “yieldably resist opening of the blade” and “yieldably resist movement of the blade towards a closed position” (col. 2, lns. 31-51). Thus, Brown does not disclose a knife with a spring operatively connected between the blade and the handle and configured to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position.

As discussed above, the cited reference does not disclose, teach, or suggest a knife recited in claim 23. Claims 24 and 27-29 contain further limitations that distinguish the cited reference. Accordingly, claim 23 and its dependent claims patentably distinguish the cited art, and applicant respectfully requests that the rejections of claims 23, 24, and 27-29 under 35 U.S.C. §§ 102(b) and 103(a) be withdrawn.

#### *Claim 34 and its Dependent Claims*

Claim 34 stands rejected under 35 U.S.C. § 102(b) as being unpatentable over Wilbur (U.S. Patent No. 2,286,524), Brown (U.S. Patent No. 1,864,011), Boyd et al. (U.S. Patent No. 4,541,175), Neely (U.S. Patent No. 5,060,379), and Cassady (U.S. Patent No. 5,293,690). Claims 35 and 36, which all depend directly from claim 34, also stand rejected under 35 U.S.C. § 102(b) based on several of the above references. Claim 35 is cancelled without prejudice. As explained below, applicant disagrees with the rejections and has made certain claim amendments to clarify what he regards as his invention.

Claim 34, as amended, recites a knife with a spring that exhibits a decrease in effective length, as the blade moves from one of the stowed and the deployed conditions toward an intermediate point between those two conditions, followed by an increase in effective length as the blade moves from the intermediate point toward the other condition.

Referring first to Wilbur, that patent does not disclose a spring that exhibits both the decrease and the increase in effective length described above. Instead, a user must decrease the effective length of spring 23 (by pulling on knob 22) in the Wilbur knife to allow any blade movement. Additionally, increasing the effective length of spring 23 (by releasing knob 22) would lock the blade and prevent any blade movement. Thus, Wilbur does not disclose a knife with a spring that exhibits a decrease in effective length, as the blade moves from one of the stowed and the deployed conditions toward an intermediate point between those two conditions, followed by an increase in effective length as the blade moves from the intermediate point toward the other condition.

Referring next to Brown, that patent does not disclose a spring that exhibits the decrease in effective length followed by the increase in effective length as described above. Instead, spring 8 in the Brown knife exhibits the reverse change in effective length, namely an increase in effective length followed by a decrease in effective length. Thus, Brown does not disclose a knife with a spring that exhibits a decrease in effective length, as the blade moves from one of the stowed and the deployed conditions toward an intermediate point between those two conditions, followed by an increase in effective length as the blade moves from the intermediate point toward the other condition.

With regard to Boyd, that patent does not disclose a spring that exhibits both the decrease and the increase in effective length described above. Instead, a user must decrease the effective



length of spring 48 (by depressing actuating button 30) in the Boyd knife to allow any blade movement. The effective length of spring 48 remains in that decreased state until blade 12 is moved into one of the stowed, deployed, or intermediate positions, where the effective length of spring 48 increases to lock blade 12 in the selected position. Thus, Boyd does not disclose a knife with a spring that exhibits a decrease in effective length, as the blade moves from one of the stowed and the deployed conditions toward an intermediate point between those two conditions, followed by an increase in effective length as the blade moves from the intermediate point toward the other condition.

Referring next to Neely, that patent does not disclose a spring that exhibits both the decrease and the increase in effective length described above. Instead, a user must decrease the effective length of spring 130 (by pulling on blade 90) in the Neely knife to allow any blade movement. The effective length of spring 130 remains in that decrease state until blade 90 is moved into one of the stowed or deployed positions, where the effective length of spring 130 increases to lock blade 90 in the selected position. Thus, Neely does not disclose a knife with a spring that exhibits a decrease in effective length, as the blade moves from one of the stowed and the deployed conditions toward an intermediate point between those two conditions, followed by an increase in effective length as the blade moves from the intermediate point toward the other condition.

Referring finally to Cassady, that patent does not disclose a spring that exhibits both the decrease and the increase in effective length described above. Instead, a user must decrease the effective length of spring 10 (by depressing crossbolt head 21) in the Cassady knife to allow any blade movement. The effective length of spring 10 remains in that decreased state until blade 50 is moved into one of the stowed or deployed positions, where the effective length of spring 10

increases to lock blade 50 in the selected position. Thus, Cassady does not disclose a knife with a spring that exhibits a decrease in effective length, as the blade moves from one of the stowed and the deployed conditions toward an intermediate point between those two conditions, followed by an increase in effective length as the blade moves from the intermediate point toward the other condition.

As discussed above, the cited reference does not disclose, teach, or suggest a knife recited in claim 34. Claim 36 contains further limitations that distinguish the cited references. Accordingly, claim 34 and its dependent claims patentably distinguish the cited art, and applicant respectfully requests that the rejections of claims 34 and 36 under 35 U.S.C. § 102(b) be withdrawn.

#### *Claim 48 and its Dependent Claims*

Claim 48 stands rejected under 35 U.S.C. § 102(b) as being unpatentable over French publication 1.069.862 (FP '862), French Publication 1.171.740 (FP '740), and Neely (U.S. Patent No. 5,060,379). Claim 49, which depends directly from claim 48, also stand rejected under 35 U.S.C. § 102(b) based on FP '740. As explained below, applicant disagrees with the rejections and have made certain claim amendments to clarify what he regards as his invention.

Claim 48, as amended, recites a knife with a spring operatively connected to the blade to exert a directional force on the blade that is in line with the blade pivot pin when the blade is in at least one position as it moves from the stowed position toward the deployed position. Additionally, the directional force operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position.

Referring first to FP '862, that patent does not disclose a spring that exerts a directional force on the blade that is in line with the blade pivot pin when the blade is in at least one position. Instead, spring 21 in the FP '862 knife exerts a directional force to articulated levers 14 and 15, which never are in line with blade pivot pin 7. Thus, FP '862 does not disclose a knife with a spring operatively connected to the blade to exert a directional force on the blade that is in line with the blade pivot pin when the blade is in at least one position as it moves from the stowed position toward the deployed position.

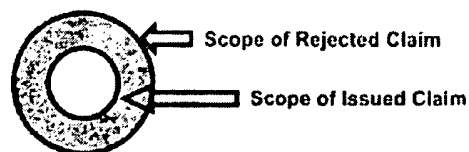
Referring next to FP '740, that patent does not disclose a spring that exerts a directional force on the blade that is in line with the blade pivot pin when the blade is in at least one position. Instead, spring 15 in the FP '740 knife exerts a directional force to lever 14, which never is in line with blade pivot pin 13. Thus, FP '740 does not disclose a knife with a spring operatively connected to the blade to exert a directional force on the blade that is in line with the blade pivot pin when the blade is in at least one position as it moves from the stowed position toward the deployed position.

Referring finally to Neely, that patent does not disclose a spring that operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position. Instead, spring 130 in the Neely knife exerts a directional force to blade 90, which locks the blade when the blade is moved to either the stowed or deployed conditions. Thus, Neely does not disclose a knife with a spring that exerts a directional force that operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position.

As discussed above, the cited reference does not disclose, teach, or suggest a knife recited in claim 48. Claim 49 contains further limitations that distinguish the cited references. Accordingly, claim 48 and its dependent claims patentably distinguish the cited art, and applicant respectfully requests that the rejections of claims 48 and 49 under 35 U.S.C. § 102(b) be withdrawn.

**Recapture (MPEP 1412.02)**

The Examiner has rejected claims 12-31, 33-37, 45, and 47-50 under 35 U.S.C. § 251 as being an improper recapture of broadened claim subject matter surrendered in the application for the patent upon which the present reissue is based. The Examiner cited some pertinent case law supporting his position and concluded that because the application shows that the broadened aspect (in the reissue) "relates to subject matter that applicant previously surrendered during prosecution of the application," the claims are subject to rejection. However, in a case rendered subsequent to the cases cited by the Examiner, on May 29, 2003 the Board of Patent Appeals rendered its decision in *Ex Parte Eggert*, 67 U.S.P.Q.2d 1716 (Bd. Of Patent Appeals and Interferences, 2003). In that case, the Board held that amending claims during the original prosecution does not prevent an applicant from removing those amendments in a subsequently filed broadened reissue. The Board ruled that it is only necessary that the claims be narrower than the originally submitted claims that were rejected. The Board referred to the following Drawing 1 in its opinion:



The Board then stated:

There came a time in the prosecution of the '992 application that claim 1 (once amended) was presented for examination and was met by a final rejection from the examiner under *35 U.S.C. § 103*. At that time, appellants were presented with a number of options for proceeding with the quest for patent protection. One was to appeal the examiner's final rejection of claim 1 (once amended) to this Board. Another was to concede that rejected claim 1 (once amended) was unpatentable and to amend that claim in an attempt to define narrower, patentable subject matter. Appellants chose the latter option and amended claim 1 a second time. Upon consideration of claim 1 (twice amended), the examiner determined that it was patentable. Thus, claim 1 (twice amended) became issued claim 1.

The changing scope of a claim during the administrative examination process as it is amended to overcome prior art rejections can be viewed as a series of concentric circles. As illustrated in Drawing 1, the scope of rejected claim 1 (once amended) is the outer circle and the scope of amended issued claim 1 (twice amended) is the inner circle. The shaded area between the circles represents subject matter which is only narrower than the scope of the rejected claim but only broader than the scope of the issued claim. In our view, the surrendered subject matter is the outer circle of Drawing 1 because it is the subject matter appellants conceded was unpatentable. The subject matter of the shaded area was not subject to the administrative examination process as the examiner was never directly presented with a claim which fell within the scope of the shaded area. Thus, appellants have never conceded that a claim falling within the scope of the shaded area of Drawing 1 is unpatentable and therefore, in our view, such subject matter is not barred by the recapture rule.

Therefore, the language added by the amendments of October 24, 1997 to the originally submitted claims need not be included in the pending reissue independent claims 12, 23, 30, 34, 45, and 48. Rather, the pending reissue claims must be narrowed in some respect from the claim that had been rejected prior to the October 24, 1997 amendment.

### *Claim 12 and its Dependent Claims*

Original application claim 1 is shown alongside reissue independent claim 12:

#### Original Claim 1:

1. A folding knife, comprising:
  - a handle defining a blade cavity and a first end;
  - a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for allowing pivotal movement of said blade about said blade pivot between an extended position outside of said blade cavity and a retracted position substantially within said blade cavity;
  - a spring biased plunger carried in said blade cavity having a first end and second end opposite said first end; said first end of said plunger including a pivotal connector pivotally connecting said plunger to said handle; and
  - said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended position.

#### Reissue Claim 12:

12. A folding knife, comprising:
  - a handle defining a blade cavity and a first end;
  - a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity; and
  - a longitudinally extending plunger having:
    - a first end slidably and pivotably connected to said handle for longitudinal and/or pivotal movement of said plunger relative to said handle as said blade moves between said retracted and extended positions, wherein said first end is free from lateral movement relative to said handle, as said blade moves between said retracted and extended positions; and
    - a second end opposite said first end, said second end of said plunger pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.

Instead of the broad language merely reciting a spring-biased plunger with a first end pivotably connected to the handle without regard to the structure of the plunger or additional types of connections, reissue claim 12 recites in a narrower fashion a longitudinally extending plunger with a first end that is both slidably and pivotably connected to the handle. Thus, the scope of reissue claim 12, as amended, falls within the shaded area of the drawing found in the

*Eggert* opinion. Therefore, reissue claim 12 is not an improper recapture of broadened subject matter surrendered in the application for the original patent.

Claims 13-22 contain additional limitations that further narrow the scope of claim 12. Accordingly, claim 12 and its dependent claims are not improper recapture of broadened subject matter surrendered in the application for the original patent, and applicant respectfully requests that the rejections of claims 12-22 under 35 U.S.C. § 251 be withdrawn.

*Claim 23 and its Dependent Claims*

Original application claim 1 is shown alongside reissue independent claim 23:

Original Claim 1:

1. A folding knife, comprising:
  - a handle defining a blade cavity and a first end;
  - a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for allowing pivotal movement of said blade about said blade pivot between an extended position outside of said blade cavity and a retracted position substantially within said blade cavity;
  - a spring biased plunger carried in said blade cavity having a first end and second end opposite said first end; said first end of said plunger including a pivotal connector pivotally connecting said plunger to said handle; and
  - said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended position.

Reissue Claim 23:

23. A folding knife, comprising:
  - a handle defining a blade cavity and a first end;
  - a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity; and
  - a plunger including a spring, the plunger pivotally connected to the blade, the spring being maximally deformed when the blade is pivoted to an intermediate point between the extended position and retracted position, thereby causing the spring to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position beyond the intermediate point.

Instead of the broad language merely reciting a spring-biased plunger without any regard to structural and/or functional limitations of the spring, reissue claim 23 recites in a narrower fashion that the spring is maximally deformed when the blade is pivoted to an intermediate point thereby causing the spring to assist opening of the blade. Thus, the scope of reissue claim 23 falls within the shaded area of the drawing found in the *Eggert* opinion. Therefore, reissue claim 23 is not an improper recapture of broadened subject matter surrendered in the application for the original patent.

Claims 24-29 contain additional limitations that further narrow the scope of claim 23. Accordingly, claim 23 and its dependent claims are not improper recapture of broadened subject matter surrendered in the application for the original patent, and applicant respectfully requests that the rejections of claims 23-29 under 35 U.S.C. § 251 be withdrawn.

*Claim 30 and its Dependent Claims*

Original application claim 1 is shown alongside reissue independent claim 30:

Original Claim 1:

1. A folding knife, comprising:  
a handle defining a blade cavity and a first end;  
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for allowing pivotal movement of said blade about said blade pivot between an extended position outside of said blade cavity and a retracted position substantially within said blade cavity;  
a spring biased plunger carried in said blade cavity having a first end and second end opposite said first end; said first end of said plunger including a pivotal connector pivotally connecting said plunger

Reissue Claim 30:

30. A folding knife comprising:  
a handle;  
a blade pivoted on said handle via a blade pivot for movement between stowed and deployed conditions relative to the handle; and  
a plunger including an elongate, force-transmitting biasing spring, where the plunger is operatively coupled with the blade for orbital movement of a portion of the plunger about the blade pivot, and the spring is operatively interposed said handle and said blade, where said spring exhibits both a rise and a fall in the biasing force carried through the spring when the blade is moved from one of the stowed condition and the deployed condition to the other of the stowed condition and the deployed condition.



to said handle; and

said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended position.

Instead of the broad language merely reciting a spring-biased plunger without any regard to structural and/or functional limitations of the spring, reissue claim 30 recites in a narrower fashion that the spring is an elongate, force-transmitting biasing spring and exhibits both a rise and a fall in the biasing force when the blade is moved from the stowed condition to the deployed condition, or vice-versa. Thus, the scope of reissue claim 30 falls within the shaded area of the drawing found in the *Eggert* opinion. Therefore, reissue claim 30 is not an improper recapture of broadened subject matter surrendered in the application for the original patent.

Claims 31 and 33 contain additional limitations that further narrow the scope of claim 30. Accordingly, claim 30 and its dependent claims are not improper recapture of broadened subject matter surrendered in the application for the original patent, and applicant respectfully requests that the rejections of claims 30, 31, and 33 under 35 U.S.C. § 251 be withdrawn.

*Claim 34 and its Dependent Claims*

Original application claim 1 is shown alongside reissue independent claim 34:

Original Claim 1:

1. A folding knife, comprising:  
a handle defining a blade cavity and a first end;  
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for allowing pivotal movement of said blade about said blade pivot between an extended position outside of said blade cavity and a

Reissue claim 34:

34. A folding knife comprising:  
a handle;  
a blade pivoted on said handle for movement between stowed and deployed conditions relative to the handle; and  
an elongate, force-transmitting biasing spring having an effective length, the spring operatively attached to said blade, where said spring exhibits both an increase and a decrease in the effective length of the spring, as said

retracted position substantially within said blade cavity;

a spring biased plunger carried in said blade cavity having a first end and second end opposite said first end; said first end of said plunger including a pivotal connector pivotally connecting said plunger to said handle; and

said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended position.

blade is moved generally from one of the stowed condition and the deployed condition toward the other condition,

wherein the spring exhibits the decrease in effective length, as said blade is moved from one of the stowed and the deployed conditions toward an intermediate point between the stowed and the deployed conditions, followed by the increase in effective length, as said blade is moved from the intermediate point toward the other condition.

Instead of the broad language merely reciting a spring-biased plunger without any regard to structural and/or functional limitations of the spring, reissue claim 34 recites in a narrower fashion that the spring exhibits both an increase and decrease of its effective length, as the blade is moved from the stowed condition to the deployed condition, or vice-versa. Thus, the scope of reissue claim 34 falls within the shaded area of the drawing found in the *Eggert* opinion. Therefore, reissue claim 34 is not an improper recapture of broadened subject matter surrendered in the application for the original patent.

Claims 36 and 37 contain additional limitations that further narrow the scope of claim 34. Accordingly, claim 34 and its dependent claims are not improper recapture of broadened subject matter surrendered in the application for the original patent, and applicant respectfully requests that the rejections of claims 34, 36, and 37 under 35 U.S.C. § 251 be withdrawn.

*Claim 45 and its Dependent Claims*

Original application claim 1 is shown alongside reissue independent claim 45:

Original Claim 1:

1. A folding knife, comprising:
  - a handle defining a blade cavity and a first end;
  - a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for allowing pivotal movement of said blade about said blade pivot between an extended position outside of said blade cavity and a retracted position substantially within said blade cavity;
  - a spring biased plunger carried in said blade cavity having a first end and second end opposite said first end; said first end of said plunger including a pivotal connector pivotally connecting said plunger to said handle; and
  - said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended position.

Reissue Claim 45:

45. A knife comprising:
  - a handle;
  - a blade pivotally held in the handle to move about a blade pivot, such that the blade moves between a stowed position and a deployed position; and
  - a spring operatively connected between the blade and the handle, wherein the spring operates on the blade to maintain the blade in the stowed position when the blade is moved to the stowed position, and operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position.

Instead of the broad language merely reciting a spring-biased plunger without any regard to structural and/or functional limitations of the spring, reissue claim 45 recites in a narrower fashion that the spring operates on the blade to maintain the blade in the stowed position when the blade is moved to the stowed position, and operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position. Thus, the scope of reissue claim 45 falls within the shaded area of the drawing found in the *Eggert* opinion. Therefore, reissue claim 45 is not an

improper recapture of broadened subject matter surrendered in the application for the original patent.

Claim 47 contains additional limitations that further narrow the scope of claim 45. Accordingly, claim 45 and its dependent claims are not improper recapture of broadened subject matter surrendered in the application for the original patent, and applicant respectfully requests that the rejections of claims 45 and 47 under 35 U.S.C. § 251 be withdrawn.

*Claim 48 and its Dependent Claims*

Original application claim 1 is shown alongside reissue independent claim 48:

Original Claim 1:

1. A folding knife, comprising:  
a handle defining a blade cavity and a first end;  
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for allowing pivotal movement of said blade about said blade pivot between an extended position outside of said blade cavity and a retracted position substantially within said blade cavity;  
a spring biased plunger carried in said blade cavity having a first end and second end opposite said first end; said first end of said plunger including a pivotal connector pivotally connecting said plunger to said handle; and  
said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended position.

Reissue Claim 48:

48. A knife comprising:  
a handle;  
a spring movably held in the handle;  
and  
a blade pivotally held in the handle by a pin, the blade pivotal between a stowed position and a deployed position,  
wherein the spring is operatively connected to the blade at a point that moves with the blade as the blade moves from the stowed position to the deployed position, and wherein the spring is operatively connected to the blade to exert a directional force on the blade that is in line with the pin when the blade is in at least one position as it moves from the stowed toward the deployed position, wherein the directional force operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position.

Instead of the broad language merely reciting a spring-biased plunger without any regard to structural and/or functional limitations of the spring, reissue claim 48 recites in a narrower

fashion that the spring is operatively connected to the blade, exerts a directional force to urge the blade toward the deployed position, and that directional force on the blade is in line with the blade pivot pin as the blade moves from the stowed position toward the deployed position. Thus, the scope of reissue claim 48 falls within the shaded area of the drawing found in the *Eggert* opinion. Therefore, reissue claim 48 is not an improper recapture of broadened subject matter surrendered in the application for the original patent.

Claim 49 and 50 contain additional limitations that further narrow the scope of claim 48. Accordingly, claim 48 and its dependent claims are not improper recapture of broadened subject matter surrendered in the application for the original patent, and applicant respectfully requests that the rejections of claims 48-50 under 35 U.S.C. § 251 be withdrawn.

#### **Offer to Surrender Original Patent (MPEP 1416)**

Applicant notes that Kai, U.S.A. made an offer to surrender U.S. Patent No. 5,815,927 in the paper entitled SUBMISSION OF OWNERSHIP INTEREST AND CONSENT TO REISSUE APPLICATION, which was mailed on June 26, 2003. Applicant understands that the original patent, or a statement as to loss or inaccessibility of the original patent, must be received before the Examiner can allow the reissue application.

#### **Claim Rejections – Defective Oath/Declaration**

The Examiner has rejected claims 1-31, 33-37, 45, and 47-50 as being based upon a defective reissue declaration under 35 U.S.C. § 251. In particular, the Examiner asserts that there is no error within the meaning of 35 U.S.C. § 251.

In *In re Wilder*, “an attorney’s failure to appreciate the full scope of the invention was held to be an error correctable through reissue.” MPEP 1402 (citing *In re Wilder*, 736 F.2d 1516, 222 (Fed. Cir. 1984)). Similarly, in applicant’s paper entitled SUBSTITUTE DECLARATION OF WALTER W. COLLINS AND PETITION FOR REISSUE, which was mailed on September 12, 2003, applicant declared that “[a]t least one error being relied upon to support this reissue application is the failure to appreciate the full scope of the invention, I believe I had the right to include broader claims.” Thus, applicant believes that he has stated at least one error within the meaning of 35 U.S.C. § 251 and complied with all the requirements of 35 U.S.C. § 251 when he submitted that paper. Therefore, applicant respectfully requests withdrawal of the rejections of claims 1-31, 33-37, 45, and 47-50 based upon a defective reissue declaration under 35 U.S.C. § 251.

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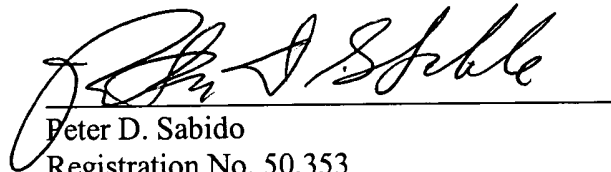
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### Conclusion

The above amendments and remarks are believed to fully address the Examiner's rejections, and to place the entire application in condition for allowance. A prompt indication of the same is respectfully requested. Attached is an Appendix A for the Examiner's convenience showing changes made to the new claims submitted with the reissue application. The Examiner is encouraged to telephone the undersigned if any issues remain that may be resolved by a telephonic interview.

Respectfully submitted,

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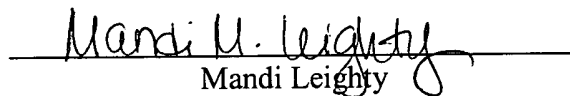
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### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MAIL STOP: RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 19, 2004.

  
Mandi Leighty